

**An investigation of spatial-temporal patterns and predictions of the coronavirus 2019  
pandemic in Colombia, 2020-2021**

**Online Supplementary Materials**

**Amna Tariq<sup>\*1</sup>, Tsira Chakhaia<sup>1</sup>, Sushma Dahal<sup>1</sup>, Alexander Ewing<sup>1</sup>, Xinyi Hua<sup>2</sup>,  
Sylvia K. Ofori<sup>2</sup>, Olaseni Prince<sup>1</sup>, Argita D. Salindri<sup>1</sup>, Ayotomiwa Ezekiel Adeniyi<sup>3</sup>,  
Juan M. Banda<sup>3</sup>, Pavel Skums<sup>3</sup>, Ruiyan Luo<sup>1</sup>, Leidy Y. Lara Díaz<sup>4</sup>, Raimund Bürger<sup>4</sup>,  
Isaac Chun-Hai Fung<sup>2</sup>, Eunha Shim<sup>5</sup>, Alexander Kirpich<sup>1</sup>, Anuj Srivastava<sup>6</sup>, Gerardo  
Chowell<sup>1</sup>**

<sup>1</sup> Department of Population Health Sciences, School of Public Health, Georgia State University, Atlanta, GA, USA

<sup>2</sup> Department of Biostatistics, Epidemiology and Environmental Health Sciences, Jiann-Ping Hsu College of Public Health, Georgia Southern University, Statesboro, GA, USA

<sup>3</sup> Department of Computer Science, College of Arts and Sciences, Georgia State University, Atlanta, GA, USA

<sup>4</sup> Centro de Investigación en Ingeniería Matemática (CIPMA) and Departamento de Ingeniería Matemática, Universidad de Concepción, Concepción, Chile

<sup>5</sup> Department of Mathematics, Soongsil University, 369 Sangdoro, Dongjak-Gu, Seoul, 06978, Republic of Korea

<sup>6</sup> Department of Statistics, Florida State University, Tallahassee, Florida, USA

**<sup>\*</sup>[atariq1@student.gsu.edu](mailto:atariq1@student.gsu.edu)**

## **S1. Scaled incidence curve**

We scale the daily case incidence curves of COVID-19 for the regional and national level by dividing the daily number of COVID-19 cases to the total number of cases reported at the national or regional level as of October 31, 2021.